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Attorney's Docket 071469-0309182
Client Reference: PC6042A2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of:
PANDA SIDDHARTHA ET AL.

Confirmation No: 8235

Application No.: 10/821,201

Group Art Unit: 1765

Filed: April 9, 2004

Examiner: GEORGE, Patricia Ann

Title: METHOD AND SYSTEM FOR DEEP TRENCH SILICON ETCH

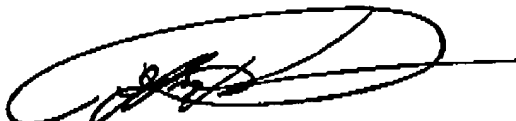
Commissioner for Patents
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UNDER 37 C.F.R. §1.8**

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Response to Restriction Requirement

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(Certification of Facsimile Transmission—page 1)

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RESPONSE TO RESTRICTION REQUIREMENT
UNDER 35 U.S.C. § 121

Hon. Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

On November 15, 2005, the Examiner issued a Restriction Requirement for the above-captioned patent application. The date for responding to this communication is December 15, 2005.

In the Restriction Requirement, the Examiner identified two inventions, which are characterized as follows: (1) Group I, encompassing claims 1-8, drawn to a method of etching a silicon-comprising substrate holder in a plasma processing system, and (2) Group II, encompassing claims 9-16, drawn to a plasma processing system for etching a silicon-comprising substrate. The Examiner required restriction between these two inventions.

In response, the Applicant elects Group II, encompassing claims 9-16, for further prosecution, with traverse.

The Applicant respectfully directs the Examiner's attention to MPEP § 808, which states: "Every requirement to restrict has two aspects: (A) the reasons (as distinguished from the mere statement of conclusion) why the inventions *as claimed* are either independent or distinct; and (B) the reasons for insisting upon restriction therebetween as set forth in the following sections." (Italics emphasis is in original.) In addition, MPEP § 808.02 states: "The examiner, in order to establish reasons for insisting upon restriction, must show by

appropriate explanation one of the following: (A) Separate classification thereof; (B) A separate status in the art when they are classifiable together; (C) A different field of search.”

The Applicant respectfully submits that the criteria for a proper restriction requirement and a proper requirement for election of species have not been met. Moreover, it is respectfully submitted that the search and examination of the entire application can be made without a serious burden on the Examiner. Accordingly, it is respectfully submitted that the Restriction Requirement should be withdrawn.

Claims 1-8 recite a method of etching a silicon-comprising substrate holder in a plasma processing system that includes placing the silicon-comprising substrate on the substrate holder; introducing a reactive process gas to a process space in the plasma processing system, the reactive process gas comprising two or more of O₂, a fluorine-containing gas, and HBr; introducing a Noble gas to the process space in the plasma processing system; applying a first radio frequency (RF) signal to the substrate holder, wherein the first RF signal comprises a frequency greater than 10 MHz; applying a second RF signal to the substrate holder, wherein the second RF signal comprises a frequency less than 10 MHz; and etching the silicon film. Claims 9-16 recite a plasma processing system for etching a silicon-comprising substrate that includes a processing chamber with a process space adjacent to the substrate; a substrate holder coupled to the processing chamber and configured to support the substrate; means for introducing a reactive process gas to the process space in the processing chamber, the reactive process gas comprising two or more of O₂, a fluorine-containing gas, and HBr; means for introducing a Noble gas to the process space in the processing chamber; a first system which applies a first radio frequency (RF) signal to the substrate holder, wherein the first RF signal comprises a frequency greater than 10 MHz; and a second system which applies a second RF signal to the substrate holder, wherein the second RF signal comprises a frequency less than 10 MHz. The Applicant respectfully submits that all of the claims share common threads. The Applicant does acknowledge the Examiner's assertion that the process can be used to make other and materially different products. However, given the common threads recited by both the apparatus and method claims, the Applicant respectfully questions the propriety of the Examiner's argument in support of the Restriction Requirement.

In addition, due at least in part to the common threads shared by the claims, the Applicant respectfully submits that there is no undue burden on the Examiner to examine all of the claims together. In other words, it is respectfully submitted that the search and

examination of the claims within elected Group II necessarily encompasses the search and examination for the claims within non-elected Group I. In addition, it is respectfully submitted that the Restriction Requirement should be withdrawn to prevent duplicative examination by the Patent Office and unnecessary expense to the Applicant.

The Applicant, therefore, respectfully requests reconsideration and withdrawal of the Restriction Requirement.

Early favorable action on the merits of this application is respectfully requested.

Respectfully submitted

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